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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Cherkasov et al.	§	Examiner:	Caixia Lu
Serial No.: 10/517,104	§	Group Art Unit:	1713
Filed: June 22, 2005	§	Docket No:	2003B073
For: Late Transition Metal Olefin Polymerization and Oligomerization Catalysts And Related Preparation Methods	§	Confirmation No.:	1152
	§	Date:	March 8, 2007

MAIL STOP AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. §1.131

I, Jo Ann M. Canich, declare as follows:

1. I am one of the inventors of the subject application and one of the authors of the attached Exhibits A, B, and C.

2. Exhibits A, B, and C are copies of pages 124, 137, and 144, respectively, of lab notebook #22128 that I and others routinely record and maintain in the ordinary course of business. Those pages 124, 137, and 144 correspond to run numbers 22128-124, 22128-137, and 22128-144, respectively, and indicate conception and reduction to practice of the claimed invention before March 12, 2001. All masked dates in Exhibits A, B, and C are prior to March 12, 2001. Run Numbers 22128-124, 22128-137 and 22128-144 correspond to entry numbers 1, 23, and 16 in Table 1 of the subject application (see page 573).

3. The subject matter of Exhibits A, B, and C was diligently prepared and filed as U.S. Patent Application Serial No. 10/517,104 beginning at a time prior to March 12, 2001, until

the filing of priority application U.S. Provisional Application Serial No. 60/396,370 filed on July 17, 2002.

4. Exhibits A, B, and C show that the invention which forms the subject matter of the pending claims in the above-captioned patent application was conceived in the United States, before March 12, 2001, and diligently reduced to practice in the United States by at least July 17, 2002, the filing date of U.S. priority provisional application, Serial No. 60/396,370.

5. Exhibits A, B, and C include a description of transition metal compounds containing substituted catecholate ligands, as recited in, for example, claim 1. More particularly, Exhibits A, B, and C each include a description of a transition metal compound (R7, R8 and R9) that is represented by the formula LMX wherein M is a Group 3 to 11 metal; L is a bulky bidentate or tridentate neutral ligand that is bonded to M by two or three heteroatoms and at least one heteroatom is nitrogen; and X is a substituted or unsubstituted catecholate ligand, as required in claim 1 and those dependent therefrom. Catalyst R7 shown in Exhibit A was catalyst "Ni-1" that is listed and described at page 546 of the originally filed specification, whereby Ni-1 represents [1,4-bis-(2,6-di-isopropylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butylcatecholate]. Catalyst R8 shown in Exhibit B was catalyst "Ni-3" that is listed and described at page 546 of the originally filed specification, whereby Ni-3 represents [1,4-bis-(2,6-di-isopropylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate]. Catalyst R9 shown in Exhibit C was catalyst "Ni-2" that is listed and described at page 546 of the originally filed specification, whereby Ni-2 represents [1,4-bis-(2,6-di-isopropylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate].

6. Exhibits A, B, and C are offered as supporting evidence that the compounds of the present invention were conceived in the United States before March 12, 2001, the earliest effective filing date (*i.e.* the "102(e) date") of U.S. Patent No. 6,410,768, to Llatas et al., and diligently reduced to practice by filing the priority application.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States

Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

March 8, 2007
DATE

Jo Ann M. Canich, Ph.D.

EXHIBIT A

124

Polymerization Data

Reactor 109 B

Reactor Volume 1 Liter

Date of Run: Date

Time of Run: Time

Operator: B. Salinas

Polymer Type: Polyethylene

Run Notebook #: Z2128-124

Cat Prep Date: DATE

The reactor was cleaned and purged with dry nitrogen at 95 C for 15 minutes.

Solvent	Toluene	Solvent Amount (mL)	400
Cocatalyst	10 wt. % MAO	Cocatalyst Amount (mL)	1.9
Cocatalyst Solvent	Toluene	Catalyst Concentration (mg/10 mL)	10.0
Catalyst	R7	Catalyst Amount	1.0
Catalyst Solvent	Toluene		
Comonomer	None	Comonomer Amount (mL)	
Ethylene Added (psid)	65		
Polymerization Temperature (C)	80		
Polymerization Time (minutes)	15		
Product Recovery Method	Evaporation.		
Polymer Yield (g)	0.39		
MCL Reagent			
Characterization Studies			

Comments

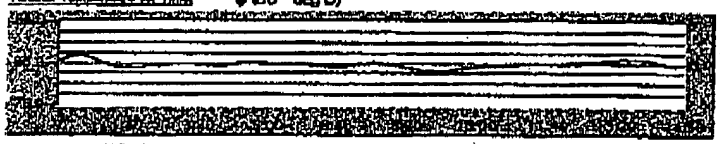
RCV Avg Temp: 79.9 C

Max Exotherm: 0.8 C

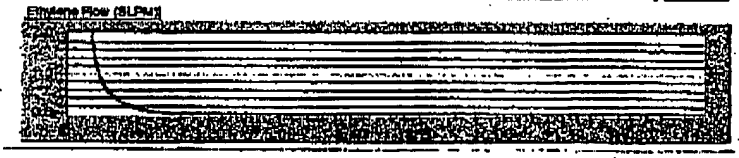
Avg Rcv Pressure: 74 psig

Total Run Time: 15:00

Reactor Temperature vs. Time: 80 deg C

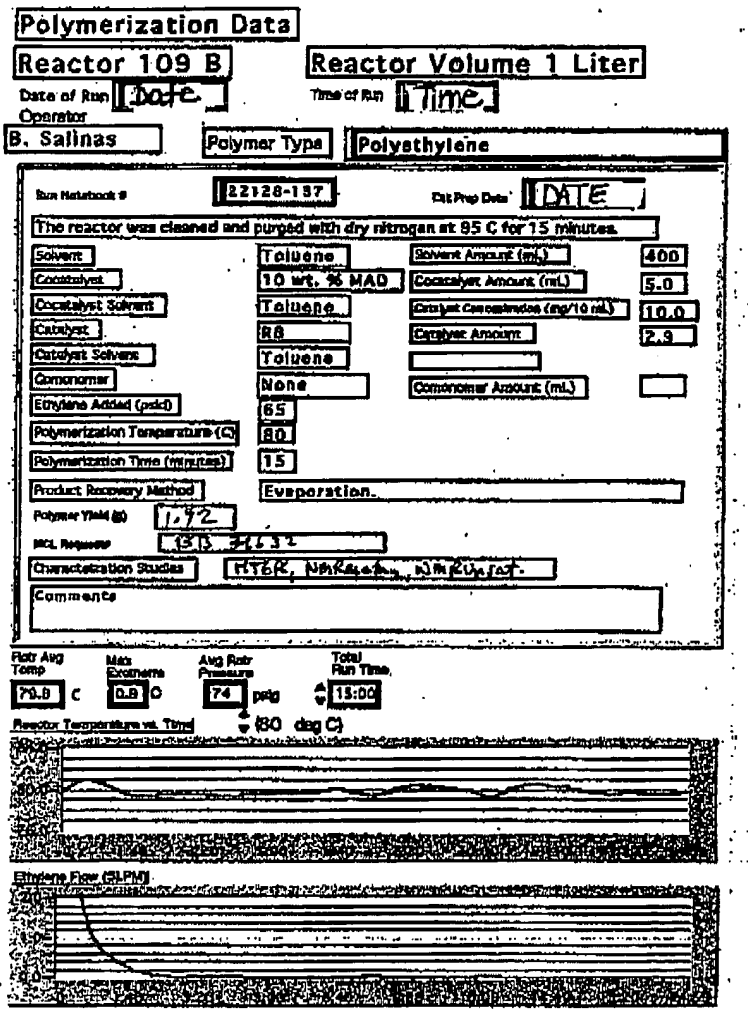


Ethylene Flow (SLPM)



RECORDED BY: [signature] DATE: Date WITNESSED BY: Cynthia Ballenger DATE: Date

EXHIBIT B



Polymerization Data

Reactor 109 B — Reactor Volume 1 Liter

Date of Run: Date — Time of Run: Time

Operator: B. Salinas — Polymer Type: Polyethylene

Run Notebook #: 22128-137 — Cat Prep Date: DATE

The reactor was cleaned and purged with dry nitrogen at 85 C for 15 minutes.

Solvent	Toluene	Solvent Amount (mL)	400
Cocatalyst	10 wt. % MAO	Cocatalyst Amount (mL)	5.0
Cocatalyst Solvent	Toluene	Catalyst Concentration (mg/10 mL)	10.0
Catalyst	B8	Catalyst Amount	2.9
Catalyst Solvent	Toluene		
Comonomer	None	Comonomer Amount (mL)	
Ethylene Added (psid)	65		
Polymerization Temperature (C)	80		
Polymerization Time (minutes)	15		
Product Recovery Method	Evaporation.		
Polymer Yield (g)	1.72		
MCL Request#	[illegible]		
Characterization Studies	HTGPC, NMR, [illegible]		

Comments

Rxtr Avg Temp	Max Excursions	Avg Rxtr Pressure	Total Run Time
79.8 C	0.8 C	74 psig	15:00

Reactor Temperature vs. Time (80 deg C)

Ethylene Flow (SLPM)

RECORDED BY: BSalinas — DATED: Date — WITNESSED BY: Cynthia Ballenger — DATE: Date

EXHIBIT C

144

Polymerization Data

Reactor 109 B

Reactor Volume 1 Liter

Date of Run: Date

Time of Run: Time

Operator: B. Salinas

Polymer Type: Polyethylene

Run Notebook #: 22128-144

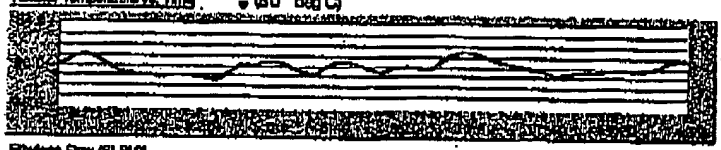
Cat.Prep Date: DATE

The reactor was cleaned and purged with dry nitrogen at 95 C for 15 minutes.

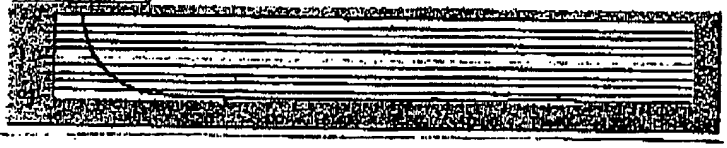
Solvent	Toluene	Solvent Amount (mL)	400
Cocatalyst	10 wt. % MAO	Cocatalyst Amount (mL)	5.0
Cocatalyst Solvent	Toluene	Catalyst Concentration (mg/10 mL)	10.0
Catalyst	R9	Catalyst Amount	2.9
Catalyst Solvent	Toluene		
Comonomer	None	Comonomer Amount (mL)	
Ethylene Added (psid)	65		
Polymerization Temperature (C)	80		
Polymerization Time (minutes)	15		
Product Recovery Method	Evaporation.		
Polymer Yield (g)	2.21 DATE		
MCL Requested	BS-# 21652		
Characterization Studies			
Comments			

Run Avg Temp	Max Exotherm	Avg Run Pressure	Total Run Time
79.9 C	1.5 C	75 psig	15:00

Reactor Temperature vs. Time (80 deg C)



Ethylene Flow (SLPM)



RECORDED BY: B Salinas DATE: Date WITNESSED BY: Cynthia Belkengin DATE: Date